REMARKS

In the Final Office Action, the Office rejects claims 1-17 and allows claims 20, 21, and 23-25 in the subject application. Applicant filed a Response to the Final Office Action on May 3, 2004, and the Office issued two Advisory Actions on May 10, 2004 and May 20, 2004. In these Advisory Actions, the Office indicates that the arguments presented in the Response to the Final Office Action have not been considered, because prosecution on the merits of the application was already closed. Thus, based on a phone conversation with Primary Examiner Gautam Patel, Applicant is resubmitting these arguments below for consideration by the Office.

Claims 1-17, 20, 21, and 23-25 (2 independent claims; 22 total claims) remain pending in the application. Applicant notes that the listing of the claims in the prior Response to the Office Action dated September 24, 2003 had some typographical errors in some of the claims that were not amended. For example, claims 2, 3, and 6 had some typographical errors. For convenience, even though no claim amendments are made in this Response, Applicant has provided a listing of all pending claims, so that the Office has a clean listing of the pending claims (without the typographical errors).

Reconsideration of this application is respectfully requested.

35 U.S.C. § 103 REJECTIONS

The Office rejects claims 1-8 and 10-17 under 35 U.S.C. §103(a) as allegedly being unpatentable over Applicants Admitted Prior Art ("AAPA") in view of Taguchi[1] and Ito[2]. Applicant respectfully traverses the rejection.

First, the Office makes various statements that are allegedly well known in the art. For example, the Office alleges that most high pass filters are associated with noise and the high frequency generation and management of high frequency signals are inherently associated with noise. Applicants respectfully note that the Examiner provides no prior art teaching or suggestion which would provide a basis for the Examiner's conclusions. The Examiner may take official notice of facts outside the record which are well known in the art. If the Applicant traverses such assertion, the Examiner should cite a reference in support of his or her position. M.P.E.P. §2144.03.

[1] U.S. Patent Number 6,011,768, issued January 4, 2000.
[2] U.S. Patent Number 5,090,411, issued February 18, 1992.

AAPA Reference

AAPA discloses a semiconductor laser driving apparatus 22 having a recording and reproduction current generation section 518, a high frequency current generation section 519, and a current driving section 511.[3]

Taguchi Reference

Taguchi discloses a high frequency current generator 50 and a semiconductor laser drive system 220 in Figure 3. High frequency current generator 50 has an oscillator 56, a self-bias circuit 90, and an output transistor 52. Oscillator 56, a coupling capacitor 55, and self-bias circuit 90 form a high pass filter (HPF) for restricting the passage of low-frequency noise components in the oscillating output. The HPF eliminates the low-frequency noise components of the oscillating output (generated by oscillator 56). A high frequency current (amplified by transistor 52) is supplied to a semiconductor laser 82.[4]

Significantly, the self-bias circuit 90 in Taguchi "ensures that neither the bias voltage nor the high-frequency current sent from the high-frequency current generator are altered".[5] Consequently, Taguchi teaches against an alteration (e.g., attenuation) in the high frequency current, and rather requires there be no alteration in the high frequency current. Indeed, the HPF in Taguchi eliminates the low-frequency noise components to allow the high-frequency components to pass, not to attenuate! Thus, Taguchi teaches away from "a filter for operating so as to attenuate the enhanced high frequency component included in the high frequency current generated by the high frequency current generation section and the enhanced high frequency component included in the recording current generated by the recording current generation section" as recited in claim 1 (and claims 2-8 and 10-17, which variously depend from claim 1) (emphasis added). Indeed, modifying Taguchi to attenuate the high-frequency current would make the self-bias circuit 90 in Taguchi inoperable for its intended use, namely, to prevent the high-frequency current from being altered (e.g., attenuated).

In addition, Taguchi fails to teach, advise, or suggest "the enhanced high frequency component included in the recording current is superposed on at least one of the plurality of multi-pulses included in the pulse of the recording current" as recited in claim 1 (and claims 2-8 and 10-17, which variously depend from claim 1). Taguchi superposes the high-frequency

[3] Present Application, page 7 and Figure 17.
[4] See Taguchi, column 5, lines 8-51 and Figure 3.
[5] Taguchi, column 6, line 66 to column 7, line 4.

current onto the drive current from a light quantity controller (APC) 60.[6] But Taguchi does not teach, advise, or suggest a recording current as recited in claim 1, because Taguchi is concerned with reading out information that has already been recorded on an optical disc.[7] Thus, Taguchi does not disclose superposing the enhanced high frequency component of a recording current. Moreover, an exemplary advantage of this feature of the claimed invention is to substantially prevent overshoot for the non-leading multi-pulses.[8] Taguchi fails to recognize this advantage, and consequently, fails to address it.

Still further, as conceded by the Office, Taguchi fails to teach, advise, or suggest "the recording current is superposed on at least one of the plurality of multi-pulses included in the pulse of the recording current based on a linear velocity of the optical disc" as recited in claim 1 (and claims 2-8 and 10-17, which variously depend from claim 1) (emphasis added).

Therefore, claims 1-8 and 10-17 are patentable over AAPA in view of Taguchi and Ito.

Ito Reference

Ito discloses an information recording/reproducing apparatus having an access device which moves a light spot 103 in the radial direction of an optical disk 102 to access a desired information track of optical disk 102.[9] Upon receiving a difference signal, a tracking actuator 106 drives a lens or mirror to move light spot 103 in order to cause the relative velocity between the light spot 103 and the information track to coincide with a target velocity.[10]

But Ito fails to teach, advise, or suggest "a switching section for switching the filter on or off so that the enhanced high frequency component included in the recording current is superposed on at least one of the plurality of multi-pulses included in the pulse of the recording current based on a linear velocity of the optical disc" as recited in claim 1 (and claims 2-8 and 10-17, which variously depend from claim 1). The focus of the Ito system is an information recording/reproducing apparatus with easy adjustment and highly stable tracking.[11] The tracking actuator 106 drives a lens or mirror to move light spot 103 to cause the relative velocity between the light spot 103 and the information track to coincide with a target velocity. But this feature in

[6] Taguchi, column 8, lines 56-58.
[7] Taguchi, column 1, lines 7-12.
[8] Present Application, page 37, lines 11-23.
[9] Ito, column 6, lines 37-40.
[10] Ito, column 7, lines 30-37.
[11] Ito, column 2, lines 3-7.

Ito is not relevant to the switching section of the claimed invention, which is concerned with switching the filter on or off based on a linear velocity of the optical disc.

Moreover, an exemplary advantage of this feature of the claimed invention is to record a recording mark with a normal shape even when the linear velocity of the optical disc fluctuates (during recording).[12] Ito focuses on moving a light spot 103 by controlling the relative velocity between the light spot 103 and the information track (i.e., a target velocity V0).[13] But Ito fails to address a different aspect that is addressed by the claimed invention, which is to record a recording mark with a normal shape despite fluctuations in the linear velocity of the optical disc. As such, Ito fails to recognize this advantage, and consequently, fails to address it. Thus, Ito fails to teach, advise, or suggest a switching section for switching the filter on or off based on a linear velocity of the optical disc as recited in claim 1.

Accordingly, the combination of AAPA in view of Taguchi and Ito fails to teach, advise, or suggest one or more claimed elements. Regardless, even if the combination of AAPA in view of Taguchi and Ito disclosed the claimed invention, which they do not, "[t]he factual inquiry whether to combine references must be thorough and searching".[14] "It must be based on objective evidence of record".[15] "This precedent has been reinforced in myriad decisions, and cannot be dispensed with".[16] Accordingly, Applicant submits that the cited art of record contains no teaching, suggestion, or motivation to combine the references as proposed by the Office.[17] Regardless, in light of the foregoing, the combination fails to teach, advise, or suggest the missing claimed elements. Therefore, claims 1-8 and 10-17 are patentable over AAPA in view of Taguchi and Ito.

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[12] Present Application, page 48, lines 3-8.
[13] Ito, column 7, lines 30-37.
[14] In re Sang Su Lee, 277 F.2d 1338, 1342, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002) (citing McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d (BNA) 1001, 1008 (Fed. Cir. 2001)).
[15] In re Sang Su Lee at 1342.
[16] Id. (citing Brown & Williamson Tobacco Corp. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d (BNA) 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" quoting C.R. Bard, Inc., v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 U.S.P.Q.2d (BNA) 1225, 1232 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d (BNA) 1614, 1617 (Fed. Cir. 1999)).
[17] See ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577 (Fed. Cir. 1984) (teachings of the prior art can be combined to show obviousness only if there is some suggestion or teaching to do so).

Iwasa Reference

The Office rejects claim 9 under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA and Taguchi as applied to claim 1 above and further in view of Iwasa[18]. Applicant respectfully traverses the rejection.

Iwasa discloses a write control system for writing optical disk data, where the data maintains an accurate pit shape even during high density data recording.[19] This is done to get regenerative signals having a better carrier-to-noise (CNR) ratio.

In view of the foregoing arguments regarding AAPA and Taguchi in connection with claim 1, claim 9 (which is depend upon claim 1) is also patentable over AAPA and Taguchi and further in view of Iwasa. Moreover, Taguchi is concerned with reading out information that has already been recorded on an optical disc. But Iwasa is limited to writing (or recording) optical disk data, so that these two different systems are not relevant to each other. Thus, there is no teaching, suggestion, or motivation to combine these references, and there would not be a reason to. Regardless, in light of the foregoing in connection with claim 1, the combination fails to teach, advise, or suggest the missing claimed elements. Therefore, claim 9 is patentable over AAPA and Taguchi as applied to claim 1 and further in view of Iwasa.

[18] U.S. Patent Number 5,327,411, issued July 5, 1994.
[19] Iwasa, column 4, lines 54-60.

CONCLUSION

Thus, the Applicant respectfully submits that the present application is in condition for allowance. Reconsideration of the application is thus requested. Applicant invites the Office to telephone the undersigned if he or she has any questions whatsoever regarding this Response or the present application in general.

Respectfully submitted,

By: S. Shah 5-31-04
Shahpar Shahpar
Reg. No. 45,875

SNELL & WILMER, L.L.P.
One Arizona Center
400 East Van Buren
Phoenix, Arizona 85004-2202
Phone: (602) 382-6306
Fax: (602) 382-6070
Email: sshahpar@swlaw.com